

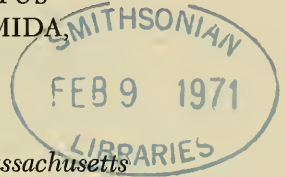
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THE IDENTITY OF *ERGETHUS PERDITUS*  
CHAMBERLIN (DIPLOPODA, POLYDESMIDA,  
PARADOXOSOMATIDAE)<sup>1</sup>

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Among the most frustrating problems in diplopod taxonomy are names accompanied by inadequate or misleading descriptions and illustrations. If undiscovered, these errors can lead to a great deal of confusion. One such error was recently brought to light by Hoffman (1966), who examined the holotype of *Sinostemmiulus simplicior* Chamberlin and Wang, and found it to belong to the order Julida (Nemasomatidae) rather than to the order Stemmiulida under which it had been described.

In 1949, Chamberlin described a remarkable new family of chordeumid millipeds, the family Ergethidae, based on the single species *Ergethus perditus*, supposedly collected near Kerrville, Texas. The description is inadequate for recognition of the species, except for the fact that the animal is described as having both 17 ocelli on each side of the head and 20 body segments. The presence of ocelli excludes it from the order Polydesmida, and the presence of only 20 body segments makes the family unique among the Chordeumida, in which the number of body segments ranges from 26 to 32.

Illustrations of the gonopod, though crude, were totally unlike any known family of Chordeumida.

Because of the possibility of the Chordeumida and the Polydesmida having a common origin, this supposedly polydesmid-like chordeumid promised to be of unusual interest. Through Dr. H. W. Levi of the Museum of Comparative Zoology, I

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borrowed the types from the University of Utah collection. I thank Mr. Thomas Lorenz and Dr. George Edmunds for loaning them to me, and Dr. Richard L. Hoffman, Radford, Va., for valuable suggestions on the synonymy presented below.

The types are totally devoid of any chordeumoid characters—there are no spinnerets, no ocelli and no segment setae. The gonopods and nonsexual characters are typical of a member of the order Polydesmida, Family Paradoxosomatidae. The pertinent synonymy is given below, with a brief redescription of the male holotype.

#### ORDER POLYDESMIDA

##### SUBORDER PARADOXOSOMATIDEA

##### Family Paradoxosomatidae Daday, 1889

Paradoxosomatidae, Jeekel, 1963, *Stud. Fauna Suriname* 4(11):7.  
 Ergethidae Chamberlin, 1949, *Proc. Biol. Soc. Washington* 62:7. Type genus, *Ergethus* Chamberlin, 1949. NEW SYNONYMY.

##### Genus *Ergethus* Chamberlin, 1949

*Ergethus* Chamberlin, 1949, *Proc. Biol. Soc. Washington* 62:7. Type species, *Ergethus perditus* Chamberlin, 1949, by monotypy and original designation.

*Porcullosoma* Kraus, 1956, *Senck. Biol.* 37:411. Type species, *Catharosoma castaneum* Kraus, 1954, by original designation.

*Diagnosis:* (From Kraus, 1956, translated from German) "Small animals (Males 1.4–1.8 mm wide). 20 segments. Pore formula normal. No lateral swellings or grooves. No paranota. Coxae of legpair 2 normal. Sternites 4 to 6-posterior modified in different ways, or normal. Femora of anterior legs without gland openings. Sternites of posterior segments with anterior pair of blunt tubercles and posterior pair of short processes. Anal scales normal. Gonopods: Prefemur long and straight, about half the length of the whole gonopod. Femoral region with a large, more or less irregular, accessory lamella, directed mesally. Tibiotarsus thin-branched, bent over towards median line, one of the two branches bearing the solenophore and solenomerite."

*Species and distribution:* All seven species of *Ergethus* except *perditus* are known for certain to occur in Peru.

##### *Ergethus perditus* Chamberlin

*Ergethus perditus* Chamberlin, 1949, *Proc. Biol. Soc. Washington* 62: 7–8, figs. 1, 2.

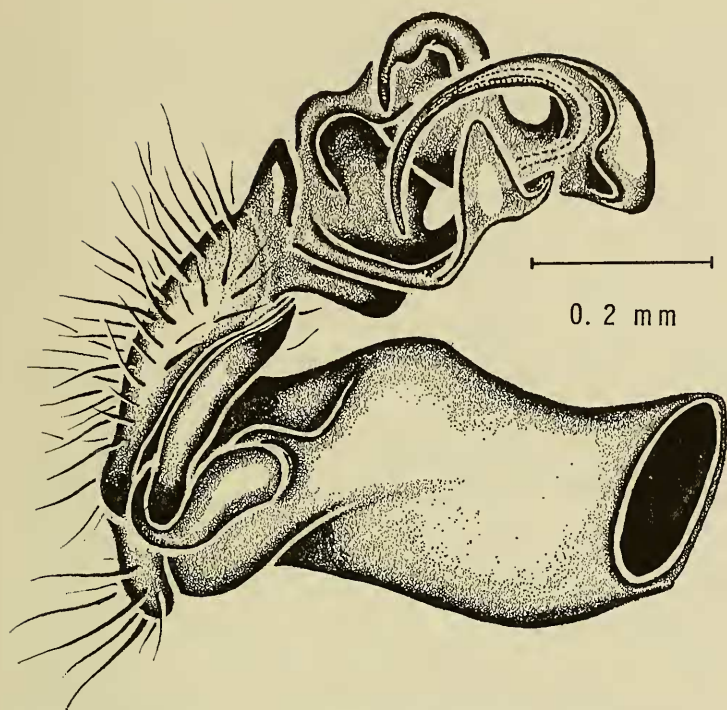


Fig. 1. Right gonopod of *Ergethus perditus*, mesal view, ventral side to the left.

*Types*: Male holotype, male, female, and juvenile paratypes supposedly from Kerrville, Texas, but probably from an undeterminable locality in Peru. Chamberlin had a large collection of Peruvian millipeds on hand at the same time (Chamberlin, 1955) that *Ergethus* was described. It is possible a mistake was made while sorting this material, and the types of *E. perditus* became mixed with some genuine Texas material. Aside from the ubiquitous introduced *Oxidus gracilis*, no paradoxosomatids occur in the United States. The name *perditus* ("lost") is also puzzling.

*Description of holotype male*: Length, 11.5 mm, width 1.3 mm. With the characters of the genus. Median setose knobs between legpairs 3-5, two smaller setose knobs between legpair 6, two still smaller setose knobs widely spaced between legpair 7. Gonopods (Fig. 1) with femoral lamella large, thin, projecting first mesally, then slightly curved ventrally *in situ*. Basal tibiotarsal branch roughly cylindrical, arising from laterally swollen area, sharply elbowed mesally then dorsally. Solenophore branch flattened, broadly expanded, curved lamella. Solenomomite cylin-

drical, evenly tapered, acute. Gonopods subtended by elongate setose processes arising near coxal sockets of legpair 9 from metasternite. Coloration: completely bleached by preservation. Usual color in genus ranges from light brown to nearly black (Kraus, 1959). Original description gives color as "in general, brown, paler beneath and in more or less distinct annuli. Legs yellow (Chamberlin, 1949)."

LITERATURE CITED

- CHAMBERLIN, R. V. 1949. A new family in the diplopod order Chordeumida. *Proc. Biol. Soc. Wash.* 62: 7-8.
- . 1955. New millipeds from Peru and adjacent parts. *Bull. Univ. Utah Biol. Ser.* 11(5): 1-47.
- HOFFMAN, R. L. 1966. The ordinal position of the name *Sinostemmiulus* Chamberlin and Wang, 1953. *Proc. Ent. Soc. Washington* 68: 322-325.
- KRAUS, O. 1956. Über neotropische Strongylosomatidae (Diplopoda). *Senck. Biol.* 37: 403-419.
- . 1959. Myriapoden aus Peru, VIII. *Senck. Biol.* 40: 263-281.